

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electrode ~~comprises~~ comprising:
at least a first metal layer and a second metal layer sequentially formed on a
~~the~~ semiconductor film in this order, and
an intermediate metal layer is interposed between the first metal layer and the
semiconductor film, wherein
the electrode is in ohmic contact with the semiconductor film with heat
treatment at a temperature that is higher than a melting point of Al by 40°C or more,
the semiconductor film is formed on a substrate,
the first metal layer is formed with a first metal material,
the second metal layer is formed with a second metal material,
the intermediate metal layer comprises a metal material having a melting point
greater than the melting point of Al,
~~and the electrode is formed on a semiconductor film which is formed on a~~
~~substrate, comprising, wherein~~
~~a first metal material formed the first metal layer is comprised of Al, and~~
an eutectic alloy formed of the first metal material and a second metal material
forming the second metal layer has a melting point equal to or higher ~~greater~~ than the
temperature of the heat treatment, ~~and~~
an alloy of the second metal material and Al starts to be formed at a
temperature equal to or higher ~~greater~~ than the melting point of Al, ~~and~~
the first metal material is comprised of Al; and

the second metal material comprises at least one metal selected from the group consisting of Nb, Fe, Re, Ta and Zr.

~~the intermediate metal layer comprises a metal material having a melting point greater than the melting point of Al, and~~

~~the electrode in ohmic contact with the semiconductor film with heat treatment at a temperature equal to 40°C or more greater than the melting point of Al.~~

2. (Currently Amended) The electrode according to claim 1, wherein the alloy of the second metal material and Al starts to be formed at a temperature equal to or greater than the temperature of the heat treatment temperature.

3. (Currently Amended) The electrode according to claim 1, wherein the temperature of the heat treatment is equal to or greater than 800°C.

4. (Currently Amended) The electrode according to claim 1, wherein the melting point of the eutectic alloy is equal to or greater than 1,100°C.

5. (Currently Amended) The electrode according to claim 1, wherein the second metal material forming the second metal layer is composed of a ~~comprises at least one~~ metal selected from the group consisting of Nb, W, Fe, Hf, Re, Ta and Zr.

6. (Original) The electrode according to claim 1, wherein a third metal layer is interposed between the first metal layer and the second metal layer.

7. (Currently Amended) The electrode according to claim 6 ~~5~~, wherein the third metal layer comprises an alloy formed of the first metal material and the second metal material.

8. (Original) The electrode according to claim 1, wherein the semiconductor film is a Group III nitride semiconductor film.

9. (Canceled)

10. (Previously Presented) The electrode according to claim 1, wherein part or whole of the first metal layer comprises an alloy formed of the first metal material and the metal material constituting the intermediate metal layer.

11. (Currently Amended) The electrode according to claim 1, wherein the metal material constituting the intermediate metal layer comprises at least one metal selected from the group consisting of Ti, Nb, V, W, Ta, Re, Mo, Mn, Pt, Pd, Rh, Y and Zr.

12. (Canceled)

13. (Currently Amended) The electrode according to claim 1, wherein a third metal layer ~~comprises~~ comprising of a third metal material having a melting point greater than the melting point of Al is further provided on the second metal layer.

14. (Original) The electrode according to claim 13, wherein the second metal material comprises of Nb and the third metal material is formed of Au.

15. (Original) A semiconductor device comprising a semiconductor film and an electrode formed on the semiconductor film, wherein the electrode is the electrode according to claim 1.

16. (Currently Amended) A method for manufacturing an electrode formed on a semiconductor film comprising:

forming a first metal film on the semiconductor film;

forming a second metal film on the first metal film; and

treating the first metal film and the ~~first~~ second metal film with heat at a temperature that is higher than 40°C or more ~~greater~~ than the melting point of Al; by 40°C or more.

wherein

the first metal layer is formed with a first metal material,

the second metal layer is formed with a second metal material,

~~wherein an~~ eutectic alloy formed of the first metal film and the second metal film has a melting point equal to or higher ~~greater~~ than the temperature of the heat treatment, ~~step, and~~ an alloy of the second metal material and Al starts to be formed at a temperature equal to or greater than the melting point of Al,

the first metal material is comprised of Al; and

the second metal material comprises at least one metal selected from the group consisting of Nb, Fe, Re, Ta, and Zr.

17. (Currently Amended) The method for manufacturing an electrode according to claim 16, wherein the alloy of the second metal material and Al starts to be formed at a temperature equal to or greater than the temperature of the heat treatment ~~temperature~~.